

Amendments to the Claims:

1. (Cancelled)
2. (Previously Amended) A recombinant expression cassette, comprising the polynucleotide of claim 12 operably linked to a promoter.
3. (Previously Amended) A host cell comprising the polynucleotide of claim 12.
4. (Currently Amended) A transgenic plant comprising ~~a recombinant expression cassette comprising~~ the polynucleotide of claim 12.
5. (Original) The transgenic plant of claim 4, wherein said plant is a monocot.
6. (Original) The transgenic plant of claim 4, wherein said plant is a dicot.
7. (Currently Amended) The transgenic plant of claim 4, wherein said plant is selected from the group consisting of: maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
8. (Currently Amended) A transgenic seed from the transgenic plant of claim 4 ~~comprising wherein the seed comprises the recombinant expression cassette~~ polynucleotide.
9. (Withdrawn)
10. (Withdrawn)
11. (Withdrawn)

12. (Currently Amended) An isolated polynucleotide comprising a polynucleotide selected from the group consisting of:
- (a) a nucleic acid sequence having at least ~~80%~~ 90% sequence identity over the entire length of SEQ ID NO: 1, as determined by the GAP program under default parameters, wherein said sequence encodes a polypeptide ~~having ATP-dependent DNA binding activity~~ involved in double-strand DNA break repair; and
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).
13. (Cancelled)
14. (Currently Amended) An isolated polynucleotide comprising a nucleic acid sequence which selectively hybridizes to the full-length complement of SEQ ID NO: 1, under stringent hybridization conditions and a wash in 0.1X SSC at 60°C, wherein stringent hybridization conditions comprise 50% formamide, 1M NaCl, and 1% SDS at 37°C, wherein the polynucleotide encodes a polypeptide ~~having ATP-dependent DNA binding activity~~ involved in double-strand DNA break repair.
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Previously Added) The isolated polynucleotide of claim 12, wherein the nucleic acid sequence of (a) has at least 95% sequence identity to SEQ ID NO: 1.

19. (Previously Added) The isolated polynucleotide of claim 12, wherein the polynucleotide is SEQ ID NO: 1.
20. (Currently Amended) An isolated polynucleotide comprising a ~~member~~ polynucleotide selected from the group consisting of:
- (a) a nucleic acid sequence encoding a polypeptide having at least 90% sequence identity over the entire length of SEQ ID NO: 2, as determined by the GAP program under default parameters, wherein the encoded polypeptide ~~has ATP-dependent DNA binding activity~~ is involved in double-strand DNA break repair; and
- (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).
21. (Previously Added) The isolated polynucleotide of claim 20, wherein the nucleic acid sequence of (a) encodes a polypeptide having at least 95% sequence identity to SEQ ID NO: 2.
22. (Previously Added) The isolated polynucleotide of claim 20, wherein the polynucleotide encodes the polypeptide of SEQ ID NO: 2.
23. (Previously Added) A recombinant expression cassette comprising the polynucleotide of claim 20 operably linked to a promoter.
24. (Currently Amended) A ~~non-human~~ host cell comprising the ~~recombinant expression cassette~~ polynucleotide of claim ~~23~~ 20.
25. (Previously Added) A host cell of claim 24, wherein the host cell is a plant cell.

26. (Currently Amended) A transgenic plant comprising the ~~recombinant expression cassette~~ polynucleotide of claim ~~23~~ 20.
27. (Previously Added) The transgenic plant of claim 26, wherein said plant is a monocot.
28. (Previously Added) The transgenic plant of claim 26, wherein said plant is a dicot.
29. (Previously Added) The transgenic plant of claim 26, wherein said plant is selected from the group consisting of maize, soybean, safflower, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
30. (Currently Amended) A transgenic seed from the transgenic plant of claim 26 comprising wherein the seed comprises the ~~recombinant expression cassette~~ polynucleotide.
31. (Previously Added) A recombinant expression cassette comprising the polynucleotide of claim 14 operably linked to a promoter.
32. (Currently Amended) A ~~non-human~~ host cell comprising the recombinant expression cassette of claim 31.
33. (Previously Added) A host cell of claim 32, wherein the host cell is a plant cell.
34. (Previously Added) A transgenic plant comprising the recombinant expression cassette of claim 31.

35. (Previously Added) The transgenic plant of claim 34, wherein said plant is a monocot.
36. (Previously Added) The transgenic plant of claim 34, wherein said plant is a dicot.
37. (Previously Added) The transgenic plant of claim 34, wherein said plant is selected from the group consisting of maize, soybean, safflower, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
38. (Currently Amended) A transgenic seed from the transgenic plant of claim 34 ~~comprising~~ wherein the seed comprises the recombinant expression cassette.
39. (Cancelled)
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